

IN THE SPECIFICATION:

Please AMEND the paragraph beginning at page 12, line 9 as follows:

When it is assumed that a first data frame (Data Frame 1) is a sector, a second data frame (Data Frame 2) is an ECC block, the scrambled data amount in the first data frame is b , the scrambled data amount in the second data frame is B , the scrambled data amount in the innermost circumference track is A , and the scrambled data amount of two tracks in the outermost circumference is C , the following condition 1, condition 2, and condition 3 must be met, and the random data generation cycle of the random data generator in a scrambler of an optical system must be equal to or greater than $B \times \alpha \times C/B$. The same values from the random data generator or the same decoding values can be used while the random data generator does not exceed $\alpha \times C/B$.

Condition 1) Data Frame 2 = $n \times$ Data Frame 1, n is an integer,

Condition 2) $|A/B| = \alpha$, $|A/B|$ represents the integer part of A/B .

Condition 3) ~~$b \times C/B = B$~~ $|C/B| = \beta$, $|C/B|$ represents the integer part of C/B .

Please AMEND the paragraph beginning at page 12, line 21 as follows:

"When Data Frame 1 = $2K$ (b), Data Frame 2 = $32K$ (B), and the scrambled data amount of two tracks in the outermost circumference = $284K$ (C), a random data generator..."

Please AMEND the paragraph beginning at page 13, line 1 as follows:

Example 2) The first case of an HD-DVD having a line density in a tangential direction approximately twice as high as that of a DVD

When Data Frame 1 = $4K$ (b), Data Frame 2 = $64K$ (B), and the scrambled data amount of two tracks in the outermost circumference = $568K$ (C), a random data generation cycle must be equal to or greater than $35.5 K (=4K \times 568/64K)$. Since $\alpha = \text{int } |120K/64K| = 1$, it is possible to use an initial value or a decoding value while the random data generation cycle does not exceed $64K$.

Please AMEND the paragraph beginning at page 13, line 8 as follows:

Example 3) The second case of an HD-DVD having a line density in a tangential direction approximately twice as high as that of a DVD

When Data Frame 1 = $8K$ (b), Data Frame 2 = $64K$ (B), and the scrambled data amount of two tracks in the outermost circumference = $568K$ (C), a random data generation cycle must

be equal to or greater than 71 K ($=8K \times 568/64K$). Since $\alpha = \text{int } |120K/64K| = 1$, it is possible to use an initial value or a decoding value while the random data generation cycle does not exceed 64128K.

Please AMEND the paragraph beginning at page 13, line 15 as follows:

Example 4) The third case of an HD-DVD having a line density in a tangential direction approximately twice as high as that of a DVD

When Data Frame 1 = 2K (b), Data Frame 2 = 64K (B), and the scrambled data amount of two tracks in the outermost circumference = 568K (C), a random data generation cycle must be equal to or greater than 17.75K ($=4K \times 568/64K$), and the scrambler of a general DVD system can be used. Since $\alpha = \text{int } |120K/64K| = 1$, it is possible to use an initial value or a decoding value while the random data generation cycle does not exceed 6432K.